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A variant of the multi-step bundle method

Yarullin R.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Copyright © by the paper's authors.A method from a class of bundle methods is proposed to solve an unconstrained optimization problem. In this method an epigraph of the objective function is approximated by the set which is formed on the basis of the convex quadratic function. This method is characterized in that iteration points are constructed in terms of information obtained in the previous steps of the minimization process. Computational aspects of the proposed method are discussed, convergence of this one is proved, and convergence rate of the iteration process is obtained.

Keywords

A bundle method, An epigraph, Approximation sets, Convergence rate, Multi-step methods